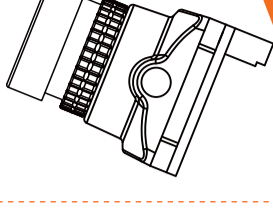


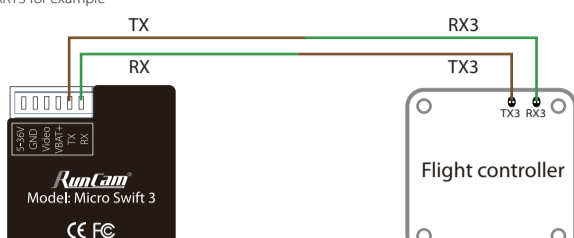
RUNCAM MicroSwift 3

USER MANUAL



1. Flight controller wiring

Note: Take UART3 for example

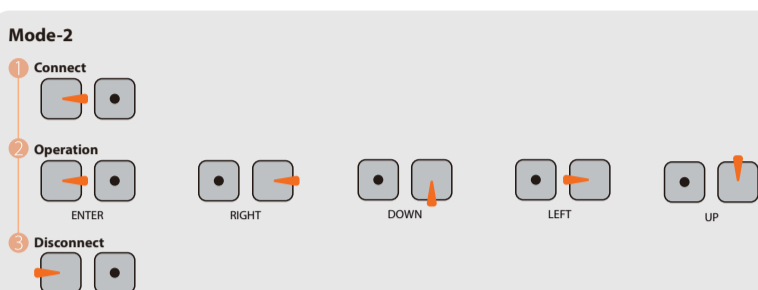


2. Betaflight 3.3 or above setting

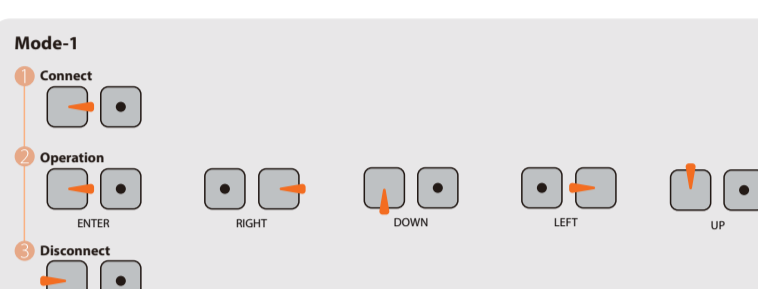
Identifier	Configuration/MS	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USBCP	115200	<input type="checkbox"/>	Disabled AUTO	Disabled AUTO	Disabled AUTO
UART1	115200	<input type="checkbox"/>	Disabled AUTO	Disabled AUTO	Disabled AUTO
UART2	115200	<input type="checkbox"/>	Disabled AUTO	Disabled AUTO	Disabled AUTO
UART3	115200	<input checked="" type="checkbox"/>	Disabled AUTO	Disabled AUTO	RunCam Device AUTO
UART4	115200	<input type="checkbox"/>	Disabled AUTO	Disabled AUTO	Disabled AUTO
UART5	115200	<input type="checkbox"/>	Disabled AUTO	Disabled AUTO	Disabled AUTO

3. Remote control

Mode-2



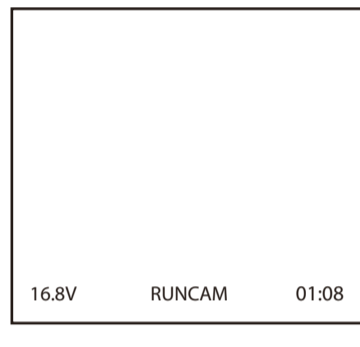
Mode-1



* When connected, The buzzer on Flight Controller will beep for 3 times; When disconnected, The buzzer on Flight Controller will beep for 2 times only; If connected successfully, you can long press the up button to enter the OSD menu, right button to switch preset scenes, left button to calibrate voltage and down button to reset OSD.

OSD Menu

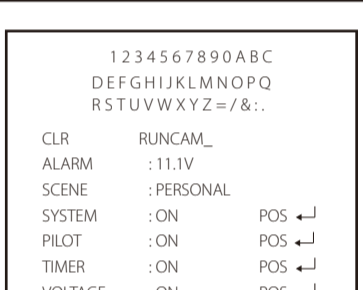
QUICK SETTINGS



Quick settings:

- Long press UP button for three seconds to access to the OSD setting's screen
- Long press LEFT button for three seconds to calibrate the voltage. When the voltage text flashes, press UP/DOWN button to adjust it
- Long press DOWN button for ten seconds to reset OSD settings to default
- Long press RIGHT button for three seconds to switch between the camera presets

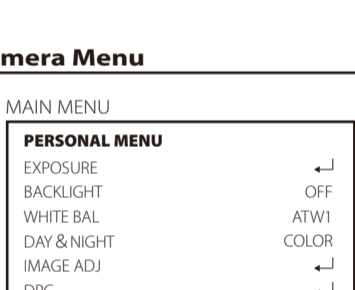
OSD Menu



- CLR: clear the ID character;
- ALARM: low voltage warning value, smartly judge the warning value of the battery when it's low; if set it manually, then it saves the manual preset value;
- SCENE: switch the camera presets among Personal / Lightrax / Outdoor/ Indoor/ Cloudy / Twilight
- Press the middle button to switch ON / OFF, then move to POS to enter the position adjustment..

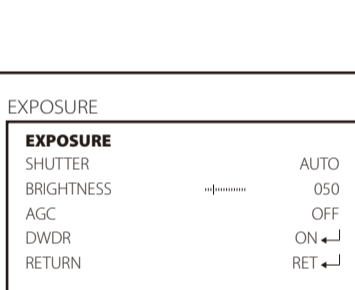
Camera Menu

MAIN MENU



- LANGUAGE (English/中文)
- WHITE BAL (ATW1 / ATW2 / AWC → SET / MANUAL: MANUAL)
- DPC (Cover the lens then press enter key)

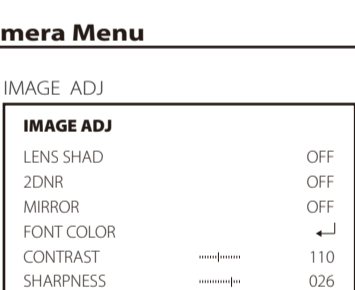
EXPOSURE



- SHUTTER (AUTO / 50-100000 / FLK)
- BRIGHTNESS (50 / 0-255)
- AGC (OFF / LOW / MIDDLE / HIGH)
- DWDR (ON: 63 0-63 / OFF)

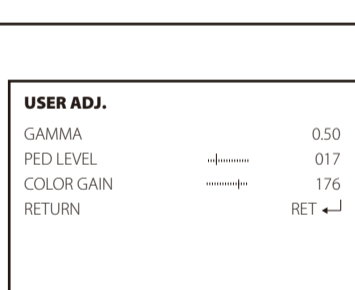
Camera Menu

IMAGE ADJ



- LENS SHAD (OFF/ ON:22 0-255)
- CONTRAST (110 / 0-255)
- SHARPNESS (26 / 0-31)
- DISPLAY (CRT/LCD/USER)

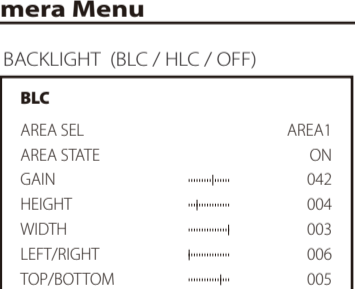
USER ADJ.



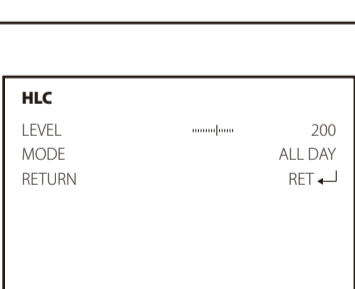
- GAMMA (0.5 / 0.05-1.0)
- PED LEVEL (17 / 0-63)
- COLOR GAIN (176 / 0-255)

Camera Menu

BACKLIGHT (BLC / HLC / OFF)



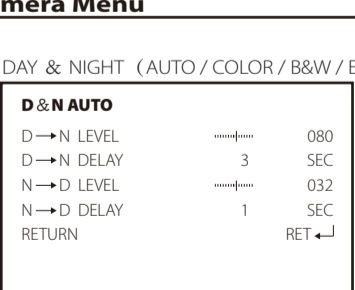
- AREA SEL (AREA1/AREA2)
- GAIN (042 / 0-255)
- HEIGHT (4 / 0-10)
- WIDTH (3 / 0-9)
- LEFT/RIGHT (6 / 0-6)
- TOP/BOTTOM (10 / 0-10)



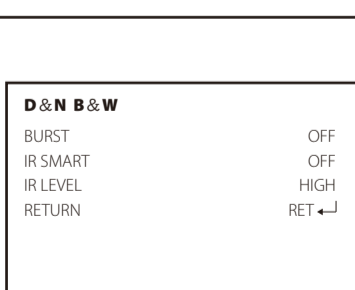
- LEVEL (200 / 0-255)
- MODE (ALL DAY / NIGHT ONLY)

Camera Menu

DAY & NIGHT (AUTO / COLOR / B&W / EXT)



- DAY → NIGHT LEVEL (80 / 0-176)
- DAY → NIGHT DELAY (3 / 1-30)
- NIGHT → DAY LEVEL (032 / 0-255)
- NIGHT → DAY DELAY (1 / 1-30)



- BURST (OFF/ON)
- IR SMART (OFF/ON)
- IR LEVEL (HIGH/LOW)

Parameters

Model	RunCam Micro Swift 3
Image Sensor	1/3" SONY Super HAD II CCD
Horizontal Resolution	600TVL
Lens	2.1mm (M12) FOV165° / 2.3mm(M12) FOV 150° 2.1mm (M8) FOV160° / 2.3mm(M8) FOV 145°
Signal System	PAL/NTSC
Integrated OSD	Yes
One Touch Scene Setting	Personal / Lightrax / Outdoor / Indoor / Cloudy / Twilight
S/N Ratio	>60dB (AGC OFF)
Electronic Shutter Speed	PAL: 1/50~100,000; NTSC: 1/60~100,000
Auto Gain Control (AGC)	Yes
Min. Illumination	0.01Lux@1.2F
WDR	D-WDR
DNR	2DNR
Day/Night	Color/Auto/B&W
Remote Control	Flight Controllers: BetaFlight 3.3 / Betaflight 3.4 / Cleanflight 2.2
Power	DC 5-36V
Working Current	60mA@12V / 120mA@5V
Net Weight	9g(2.3mm) / 11g(2.1mm) / 5.6g(M8)
Dimensions	19mm*19mm*25mm (M12) / 19mm*19mm*19mm(M8)